Reply to Office Action dated: April 5, 2006

## **REMARKS**

## **Introductory Remarks**

Claims 16, 17, 19, and 20 have been cancelled without prejudice or disclaimer. Claims 21-34 have been added as shown in the Listing of Claims. Accordingly, claims 21-34 are currently pending in the application, of which claim 21 is independent. The specification was amended to include the indication of Government support and rights clause. The specification was amended at page 12 to correct a typographical error.

Applicant respectfully submits that the above amendments do not add new matter to the application and are fully supported by the specification. The table below shows where exemplary support for claim amendments exists in the specification.

Claims	Exemplary Support
21	Page 15, Line 21 – Page 17, Line13
22-23	Page 6, Lines 18-20
24	Page 7, Line 23 – Page 8, Line 2
25	Page 14, Lines 1-9
26	Page 13, Lines 4-6
27-28	Page 13, Lines 13-21
	Page 17, Lines 7-13
29-32	Page 16, Lines 1-19
33	Page 17, Lines 7-13
34	Page 4, Lines 18-21

In view of the above amendments and the following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

## Rejections Under 35 U.S.C. §102

Claims 16-17 and 19-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by U. S. Patent No. 6,656,238 issued to Rogers. ("Rogers"). In view of the present amendment this rejection is now moot.

Claims 16-17 and 19-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 5,888,469 issued to Stiller, et al. ("Stiller"). In view of the present amendment this rejection is now moot.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §102 rejections of claims 16-17 and 19-20.

With respect to currently pending claim 21, Applicant respectfully submits that Rogers and Stiller does not disclose a thermal protection system comprising "an insulating core comprising carbon foam having a thermal conductivity below about 1 W/m °K; and an antioxidant protective layer over a surface of said insulating core," as required by claim 21. Accordingly, Applicant respectfully submits that claim 21 and the claims that depend therefrom are not anticipated by Rogers and/or Stiller.

Claims 19-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Stiller.

In view of the present amendment this rejection is now moot.

Claims 19-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rogers.

In view of the present amendment this rejection is now moot.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a)

rejections of claims 19-20.

With respect to currently pending claim 21, Applicant respectfully submits that Rogers

and Stiller do not disclose, teach, or suggest a thermal protection system comprising "an

insulating core comprising carbon foam having a thermal conductivity below about 1 W/m °K;

and an antioxidant protective layer over a surface of said insulating core," as required by claim

21. Accordingly, Applicant respectfully submits that claim 21 and the claims that depend

therefrom are not obvious over Rogers and/or Stiller.

Extension of Time

A Petition for a three (3)-month extension of time under 37 C.F.R. §1.136(a) is filed

herewith extending the period for response through October 5, 2006. It is not believed that any

further extensions of time are required other than those in the accompanying Petition. If

extensions of time are necessary to prevent abandonment of this application, then such

extensions of time are hereby petitioned for under 37 C.F.R. §1.136(a). Applicants believe that

no further fees for net addition of claims are required at this time. Any fees required for

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extensions of time and any fees for the net addition of claims are hereby authorized to be charged

to our Deposit Account No. 50331.

Conclusion

Applicant believes that a full and complete response has been made to the pending Office

Action and respectfully submits that all of the stated objections and grounds for rejection have

been overcome or rendered moot. Should the Examiner feel that there are any issues outstanding

after consideration of this Reply the Examiner is invited to contact the Applicant's undersigned

representative at the number below to expedite prosecution. Prompt and favorable consideration

of this Reply is respectfully requested.

Respectfully submitted,

PM2-

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Date: October 5, 2006

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